Questions of grade four second term

Q1 Put (√) or (X) :

1. The weight of the car effects on its speed. ( )
2. After car collision, the air bag deflated as speed as it inflated ( )
3. The high-speed moving objects face less danger than the slower objectives. ( )
4. The driver should drive as fast as possible to avoid accidents. ( )
5. Mars is located a few meters away from Earth. ( )
6. There is energy loss when energy is transformed from one form to another. ( )
7. Energy cannot be transformed from one form to another. ( )
8. Most of energy chains start with the moon. ( )
9. Both electric bulb and electric heater produce thermal energy. ( )
10. When pedaling a bike, the chemical energy in your body change to kinetic energy. ( )
11. There is a stored chemical energy inside the food we eat. ( )
12. The produced sound energy helps the hair dryer to do its function. ( )
13. The energy chain of a burning candle is : chemical energy converted into thermal energy & light energy ( )
14. Mars Curiosity can be operated from a distance. ( )
15. As the speed of the car increases, the amount of used fuel decreases. ( )
16. Biofuel is one of non-renewable resources of energy. ( )
17. The sun is the primary source of forming both biofuel and fossil fuel. ( )
18. The movement of a generator in electric power station produces ( )

potential energy.

19. Acid rain causes soil and water pollution. ( )

20. When burning of fossil fuel increases, the temperature on Earth decreases. ( )

21. Windmills can do their job all the time as the wind never stops blowing. ( )

22. Both modern wind turbines and old windmills are used to generate electricity. ( )

23. Looking directly at the sun is very dangerous. ( )

24. Electricity generated by wind turbines is transmitted through wind. ( )

25. The flow of water can be controlled to generate electricity in dams. ( )

26. Turbines convert kinetic energy into electrical energy. ( )

27. Mixing of water with oxygen gas produces carbonic acid. ( )

28. The power source for the electric fan is wind. ( )

29. Plants need sunlight to grow. ( )

30. We use solar energy to preserve food. ( )

31. Electricity generated from water is called hydroelectricity. ( )

32. *Rivers store kinetic energy*. ( )

33. The sun is made of hydrogen and oxygen gases. ( )

34. Solar panels consist of a lot of plant cells. ( )

35. Water is one of the sources of electricity production in Egypt. ( )

36. The electricity produced by water is known as electromagnetic energy. ( )

37. The energy produced when operating the gas oven is electrical energy. ( )

Q2 Write the scientific term of the following:

1. The process in which two objects or more crash into each other and includes an energy transfer. (……………)
2. A liquid that stores the chemical energy and it is extracted from the fuel to move the car
3. Safety equipment used to prevent car passengers from moving forward when the car stops suddenly. (……………)
4. Safety equipment used to provide soft cushion when it is inflated automatically with a gas during a collision of cars. (……………)
5. A heavy steel ball that swings on a cable and it is used in destruction of parts of buildings. (……………)
6. The form of energy that is stored in battery of a remote control. (……………)
7. The wasted energy of a computer. (……………)
8. A robot vehicle that can be controlled from a distance and is used to explore the surface of mars (……………)
9. The energy produced from playing the guitar. (……………)
10. A device used to convert electrical energy into light energy. (……………)
11. The energy produced when the wood of trees is burned. (……………)
12. Energy can neither be created nor destroyed, but only converted from one form to another. (……………)
13. A kind of energy that is produced from the electrical heater and burning coal. (……………)
14. The energy that is produced from the blender and helps it in doing its job. (……………)
15. The main sources of energy for most forms of energies on Earth. (……………)
16. It is any substances which produces thermal energy on burning. (……………)
17. Natural resources of energy that takes a very long period of time to be formed. (……………)
18. It is a type of fossil fuel that is produced from dead marine animals. (……………)

19. It is a form of fossil fuel, which can be made from some types of plants such as grass and wood chips. (……………)
20. It is a phenomenon in which the Earth's temperature increases, when carbon dioxide gas increases in air. (……………)
21. The energy resources that include wind energy and water energy. (……………)
22. The device in electric power station that turns kinetic energy into electrical energy. (……………)
23. A panel designed to absorb the sun energy to produce heat or generate electricity. (……………)
24. Huge bodies in space made mostly of hydrogen and helium gases. (……………)
25. An energy that is generated from windmills and is transmitted through wires to houses and factors. (……………)
26. A type of electrical energy generated by water turbines in dams. (……………)
27. A build on the river that controls the flow of water and increases the potential energy of water. (……………)

Q3:Choose from column (B) what suits it in column (A)

1-

A	B
1-The object´s mass. 2-The object´s height from the earth´s surface. 3-The velocity of a moving object. 4-On the Earth´s surface,	a-It affects the kinetic energy of a moving object not on its potential energy. b- It affects the kinetic energy and the potential energy of the object. c-When it decreases, the kinetic energy increases. d-When it increases, the stored potential energy increases. e-the potential energy equals zero.

2-

A	B

1- The sun 2- Benzene 3- The fan	a- It is operated by electricity. b- Its light energy changes into chemical energy in plants. c- It is a liquid that can be used as a fuel for cars.

3-

A	B
1-Water 2-Coal 3-The sun	a- It needs extreme heat and pressure to be formed from remains of dead plants. b- It is the main resource of energy on the Erath´s surface. c- It is a liquid renewable resource of energy.

4-

A	B
1- Coal	a- Solar energy
2- Water	b- Non-renewable energy source
3- Wind turbine output	c- Electrical energy
	d- Renewable energy source

5-

A	B
1. Solar panels	a- use in cooking food by converting solar energy into heat energy.
2. Curved mirrors	b- It was used to grind grain.
3. Windmills	c- use to generate electricity from solar energy
	d- Convert kinetic energy into electrical energy.

6-

A	B
1- Turbines	a- It was used to grind grain
2- Greenhouse	b- Convert kinetic energy into electrical energy
3- Windmills	c- It helps to grow crops that only grow in warm climates
	d- Non-renewable energy source

7-

A	B
1. Law of conservation of energy	a- From the safety devices inside the cars
2. Airbag	b- Non-renewable energy source
3. Coal	c- Energy does not destroy), but transforms from one form to another
	d- renewable energy source

8-

A	
1- The sun	a- from non-renewable energy sources.
2- Coal	b- From Factors affecting the formation of fossil fuels.
3- Pressure and temperature	c- The main energy source on the Earth's surface.
	d- Converting wind energy into electrical energy.

9-

A	
1- Renewable energy	a- Converting wind energy into electrical energy.

2- Curved mirrors	b- Energy that does not run out with our consumption of it.
3- Wind turbines	c- Directs sunlight to heat and cook food.
	d- The main source of energy on the Earth's surface.

10-

A	B
1. Natural gas	a- Convert kinetic wind energy into electricity
2. Wind turbines	b- The main source of energy on the Earth's surface
3. Law of conservation of energy	c- A non-renewable energy source
	d- Energy does not destroy, but transforms from one form to another

11-

A	B
1- Solar heaters	a- It helps to grow crops that only grow in warm climates
2- Turbines	b- Water is heated using the energy of the sun.
3- Greenhouse	c- Convert kinetic energy into electrical energy
	d- from renewable energy sources

12-

A	B
1- Fossil fuels	a- One of the ways to conserve fossil fuels.
2- Solar Panels	b- A non-renewable energy source.
3- Turn off appliances and lights when Being outside the home	c- Converting solar energy into electricity.
	d- Source of renewable energy.

13-

A	B
1- Energy	a- solar energy
2- Solar heaters	b- Energy does not destroy, but transforms from one form to another
3- Solar panel input	c- It is used to heat water using the energy of the sun
	d- It is used to convert thermal energy into electrical energy

Q4 Complete the following:

1. As a result of hitting the ball with the bat, the direction of the ball will ……………
2. During a car crash, the ……… is inflated with a gas to provide a soft cushion.
3. Engineers go to reduce the weight of the solar vehicles to increase its ……..
4. The speed of ………. vehicles is slower than that of normal vehicles and …….vehicles.
5. When the mass of a moving object decreases its kinetic energy …………at the same speed.
6. To operate an electric mixer, we use …………. energy.
7. The energy can be ………. from one form to another.
8. In any energy chain, some of the energy is lost in the form of ………..
9. The energy that is produced from the battery and used to operate a toy car is ……….. energy.
10. The electric lamp converts …….. energy into light and heat energy.
11. In electric heater, ………. energy is considered as an input energy , while

thermal energy is considered as ………. energy.

12. The mobile phone converts chemical energy stored in its batteries into …….energy and …………. energy.

13. When you ride a bicycle, the ……..energy stored in your body is converted into ………. energy which causes the bicycle to move.

14. The energies that are produced from the washing machine are …..energy and …………energy.

15. On Mars planet, Curiosity robot can be operated for a long period of time by using ……….energy from sunlight that is converted into ………..energy used to recharge its batteries.

16. Coal and …………can be used in electric power stations to generate electricity.

17. We can use some forms of fuel such as ……….and ……….in warming houses.

18. ………… is example of biofuel, while ……………is example of fossil fuel.

19. Turbines in electric power stations are turned by steam and they produce ………energy to run the ……..of the electric power stations.

20. The electric generator changes ………. energy into …………. energy.

21. Global warming is a phenomenon that raises the ……….of Earth and change its ……………

22. To avoid air pollution, we must use ………resources of energy such as water.

23. The sun is a star which is mostly made up of ……. gas and ……. gas.

24. We can use solar energy in cooking by using curved ……….which collect and focus ……..onto metal pots to heat them.

25. In some villages, solar panels are used to generate…….. energy that is used to operate ………equipment.

26. When the wind turbines rotate, ………….energy is converted into ……..energy.

27. Renewable energy resources include ………. and ………..

28. Both wind and water movement produce ……..energy that is used to rotate turbines to generate …….. energy

Q5 Complete the write answer between brackets:

1.	When the car stops suddenly, the passengers move ………	(Forward - backward)
2.	When objects crash with each other, then …….transfers between them.	(Distance - energy)
3.	The big truck needs …. Engine.	(Big - small)
4.	When the car fuel completely runs out, then the car's …… becomes zero.	(Mass - speed)
5.	Kinetic energy doesn't affect by the ……….	(Mass - color)
6.	In a battery of a toy car ……….. energy changes into electrical energy.	(chemical – sound)
7.	Curiosity rover is designed to explore ……....	(Mars planet – The Moon)
8.	Electric wires are made of ………….	(wood – copper)
9.	When you use the hand ball, the ….energy changed into sound energy.	(electrical – kinetic)
10.	When you turn on a light bulb, the electrical energy travels through ………. until reaching the bulb.	(plastic – wires)
11.	Both hair dryer and electric water kettle produce ………..energy.	(thermal - light)
12.	The produced …… energy doesn't help the blender do its job.	(sound - kinetic)
13.	When a piece of coal is burnt, ………. Energy is produced.	(Potential - thermal)
14.	The car needs ……….. to move.	(fuel - water)
15.	To keep playing with the toy car, we have to ………….. the batteries.	(replace- heat)

16.	All the following are found deeply under earth's surface except ……	(coal - green plant)
17.	Coal is a type of fuel, which is used in all the following purposes except ………..	(warming houses - operating TV)
18.	Ancient people use ……… as a form of fuel before discovering gasoline.	(wind - wood)
19.	………. is considered as the main resource of energy on Earth's surface.	(The sun - Natural gas)
20.	Hydroelectric energy is generated from ………	(biofuel and fossil fuel - waterfalls and dams)
21.	Acid rain is formed when ……….combines with rain water.	(oxygen - carbon dioxide)
22.	Cars smog causes irritation of …… of human.	(the small intestine - the eye)
23.	Both modern wind turbines and old windmills are similar in their…..	(blades number – function)
24.	An example of the renewable energy is ………..	(oil – wind)
25.	Using curved ……… in cooking food is one of the benefits of using the solar energy.	(mirrors - wood)
26.	When wind ……… energy increases, the windmill blades spin faster.	(chemical - kinetic)
27.	In water turbines, the …….. energy of water is changed into electrical energy.	(kinetic - light)
28.	The form of energy resulted from waterfalls is called …… energy.	(solar - hydroelectric)
29.	Modern wind turbines are................ the old vacuum mills	(longer than - shorter than)
30.	The power source for the electric fan is ……………	(wind- electricity)
31.	Solar energy is used in ………………………	(food preservation - cooking food)
32.	The output of solar panels is......................	(photo – electricity)
33.	Hydroelectric power is produced using ………………	(wind – water)
34.	The source of all energies on earth is ………………	(The sun – planets)
35.	Examples of renewable energy sources................	(coal – wind)
36.	The sun's energy is produced from a gaseous reaction.	(Hydrogen and Helium- Nitrogen

		and Helium)
37.	The electric heater transforms energy……… into heat energy	(Radio – electricity)
38.	One of the disadvantages of wind energy is that it is …………………………….	(High cost - does not blow sometimes)

Q6:

A. Answer the following questions

1 - Mention some of the safety equipment in the car?

.... ………………

2-…….. works on starting the air bag inflating process in case of accidents.

B-

1- Which one of them generates the electric energy is higher?



Figure 1



Figure 2.

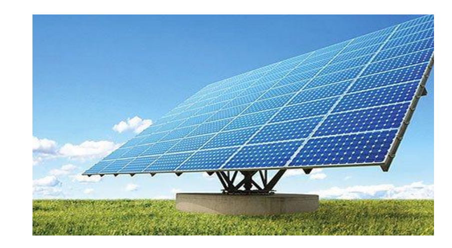
2- What is the name of input energy to this type of turbines?

……………………………………………………..

C. What happens if …..?

1- The mass of a moving object increases when it moves downward along a ramp. (according to its kinetic energy).
2- Two bicycles move in an opposite direction, collide with each other.
3- Your hand is approached to lighting electric lamp.
4- The remains of marine were buried under the Erath´s surface over millions of years.

D. From the opposite figure:



a- What is the name of this device?
b- The change of energy from………energy to …………….energy .

Q7: Choose the correct answer:-

1. A plugged-in lamp can turn _____ energy to ______ energy.
   a. electrical; light — b- electrical; light
   d. chemical; light — d. chemical; heat

2. As energy transforms from one form to another, some of it is often lost as:
   a. light — b. heat
   c. sound — d. movement

3- The airbag helps to ……….-
   a-Reduce the speed of a person's movement forward. — b-Increase the speed of a person's movement forward.
   c-Reduce the speed of a person's movement backwards. — d-Increase the speed of the person's movement backwards.

4. The airbag is made of …………………..
   a-Carton — b- Nylon
   c-Rubber — d-cloth

5. All the following are found deeply under the Erath´s surface, except…..
   a-natural gas — b- coal
   c- green plants — d- oil

6. ………….is considered as the main resource of energy on the Erath´s surface.
   a-Gasoline — b- the sun
   c-Natural gas — d- the moon.

Questions of grade four second term

Q1 Put (√) or (X) :

1. The weight of the car effects on its speed. (√)
2. After car collision, the air bag deflated as speed as it inflated (√)
3. The high-speed moving objects face less danger than the slower objectives. (X)
4. The driver should drive as fast as possible to avoid accidents. (X)
5. Mars is located a few meters away from Earth. (X)
6. There is energy loss when energy is transformed from one form to another. (√)
7. Energy cannot be transformed from one form to another. (X)
8. Most of energy chains start with the moon. (X)
9. Both electric bulb and electric heater produce thermal energy. (√)
10. When pedaling a bike, the chemical energy in your body change to kinetic energy. (√)
11. There is a stored chemical energy inside the food we eat. (√)
12. The produced sound energy helps the hair dryer to do its function. (X)
13. The energy chain of a burning candle is : chemical energy converted into thermal energy & light energy (√)
14. Mars Curiosity can be operated from a distance. (√)
15. As the speed of the car increases, the amount of used fuel decreases. (X)
16. Biofuel is one of non-renewable resources of energy. (X)
17. The sun is the primary source of forming both biofuel and fossil fuel. (√)
18. The movement of a generator in electric power station produces (X)

potential energy.

19. Acid rain causes soil and water pollution. (√)

20. When burning of fossil fuel increases, the temperature on Earth decreases. (✕)

21. Windmills can do their job all the time as the wind never stops blowing. (✕)

22. Both modern wind turbines and old windmills are used to generate electricity. (√)

23. Looking directly at the sun is very dangerous. (√)

24. Electricity generated by wind turbines is transmitted through wind. (✕)

25. The flow of water can be controlled to generate electricity in dams. (√)

26. Turbines convert kinetic energy into electrical energy. (✕)

27. Mixing of water with oxygen gas produces carbonic acid. (✕)

28. The power source for the electric fan is wind. (✕)

29. Plants need sunlight to grow. (√)

30. We use solar energy to preserve food. (✕)

31. Electricity generated from water is called hydroelectricity. (√)

32. *Rivers store kinetic energy*. (✕)

33. The sun is made of hydrogen and oxygen gases. (✕)

34. Solar panels consist of a lot of plant cells. (✕)

35. Water is one of the sources of electricity production in Egypt. (√)

36. The electricity produced by water is known as electromagnetic energy. (✕)

37. The energy produced when operating the gas oven is electrical energy. (✕)

<u>**Q2 Write the scientific term of the following:**</u>

1. The process in which two objects or more crash into each other and includes an energy transfer. (…**collision**…)
2. A liquid that stores the chemical energy and it is extracted from the fuel to move the car **gasoline (oil)**
3. Safety equipment used to prevent car passengers from moving forward when the car stops suddenly. (…**seat belt**…)
4. Safety equipment used to provide soft cushion when it is inflated automatically with a gas during a collision of cars. (…**airbag**…)
5. A heavy steel ball that swings on a cable and it is used in destruction of parts of buildings. (…**wrecking ball**…)
6. The form of energy that is stored in battery of a remote control. (…**chemical**…)
7. The wasted energy of a computer. (…**thermal**…)
8. A robot vehicle that can be controlled from a distance and is used to explore the surface of mars (…**mar rover curiosity**…)
9. The energy produced from playing the guitar. (…**sound**…)
10. A device used to convert electrical energy into light energy. (…**electrical bulb**…)
11. The energy produced when the wood of trees is burned. (…**thermal**…)
12. Energy can neither be created nor destroyed, but only converted from one form to another. (……………) **law of conservation of energy**
13. A kind of energy that is produced from the electrical heater and burning coal. (…**thermal**…)
14. The energy that is produced from the blender and helps it in doing its job. (…**kinetic**…)
15. The main sources of energy for most forms of energies on Earth. (…**sun**…)
16. It is any substances which produces thermal energy on burning. (…**fuel**…)
17. Natural resources of energy that takes a very long period of time to be formed. (…**non renewable**…)
18. It is a type of fossil fuel that is produced from dead marine animals. (…**oil /natural gas**…)

liquid bio fuel

19. It is a form of fossil fuel, which can be made from some types of plants such as grass and wood chips. (ethanol)
20. It is a phenomenon in which the Earth's temperature increases, when carbon dioxide gas increases in air. (global warming)
21. The energy resources that include wind energy and water energy. (renewable)
22. The device in electric power station that turns kinetic energy into electrical energy. (generator)
23. A panel designed to absorb the sun energy to produce heat or generate electricity. (solar panels)
24. Huge bodies in space made mostly of hydrogen and helium gases. (stars)
25. An energy that is generated from windmills and is transmitted through wires to houses and factors. (electrical)
26. A type of electrical energy generated by water turbines in dams. (hydroelectricity)
27. A build on the river that controls the flow of water and increases the potential energy of water. (dams)

Q3:Choose from column (B) what suits it in column (A)

1-

A	B
1-The object´s mass. 2-The object´s height from the earth´s surface. 3-The velocity of a moving object. 4-On the Earth´s surface,	a-It affects the kinetic energy of a moving object not on its potential energy. b- It affects the kinetic energy and the potential energy of the object. c-When it decreases, the kinetic energy increases. d-When it increases, the stored potential energy increases. e-the potential energy equals zero.

1-b 2- d 3- a 4- e

2-

A	B

1- The sun 2- Benzene 3- The fan	a- It is operated by electricity. b- Its light energy changes into chemical energy in plants. c- It is a liquid that can be used as a fuel for cars.

1-b 2- c 3- a

3-

A	B
1-Water 2-Coal 3-The sun	a- It needs extreme heat and pressure to be formed from remains of dead plants. b- It is the main resource of energy on the Erath´s surface. c- It is a liquid renewable resource of energy.

1-c 2- a 3- b

4-

A	B
1- Coal	a- Solar energy
2- Water	b- Non-renewable energy source
3- Wind turbine output	c- Electrical energy
	d- Renewable energy source

1-b 2- d 3- c

5-

A	B
1. Solar panels	a- use in cooking food by converting solar energy into heat energy.
2. Curved mirrors	b- It was used to grind grain.
3. Windmills	c- use to generate electricity from solar energy
	d- Convert kinetic energy into electrical energy.

1-c 2- a 3- b

6-

A	B
1- Turbines	a- It was used to grind grain
2- Greenhouse	b- Convert kinetic energy into electrical energy
3- Windmills	c- It helps to grow crops that only grow in warm climates
	d- Non-renewable energy source

1-b 2- c 3- a

7-

A	B
1. Law of conservation of energy	a- From the safety devices inside the cars
2. Airbag	b- Non-renewable energy source
3. Coal	c- Energy does not destroy), but transforms from one form to another
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1-c 2- a 3- b

8-

A	
1- The sun	a- from non-renewable energy sources.
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3- Pressure and temperature	c- The main energy source on the Earth's surface.
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9-

A	
1- Renewable energy	a- Converting wind energy into electrical energy.
2- Curved mirrors	b- Energy that does not run out with our consumption of it.
3- Wind turbines	c- Directs sunlight to heat and cook food.
	d- The main source of energy on the Earth's surface.

1-b **2- c** **3- a**

10-

A	B
1. Natural gas	a- Convert kinetic wind energy into electricity
2. Wind turbines	b- The main source of energy on the Earth's surface
3. Law of conservation of energy	c- A non-renewable energy source
	d- Energy does not destroy, but transforms from one form to another

1-c **2- a** **3- d**

11-

A	B
1- Solar heaters	a- It helps to grow crops that only grow in warm climates
2- Turbines	b- Water is heated using the energy of the sun.
3- Greenhouse	c- Convert kinetic energy into electrical energy
	d- from renewable energy sources

1-b **2- c** **3- a**

12-

A	B
1- Fossil fuels	a- One of the ways to conserve fossil fuels.
2- Solar Panels	b- A non-renewable energy source.
3- Turn off appliances and lights when Being outside the home	c- Converting solar energy into electricity.
	d- Source of renewable energy.

1-b **2- c** **3- a**

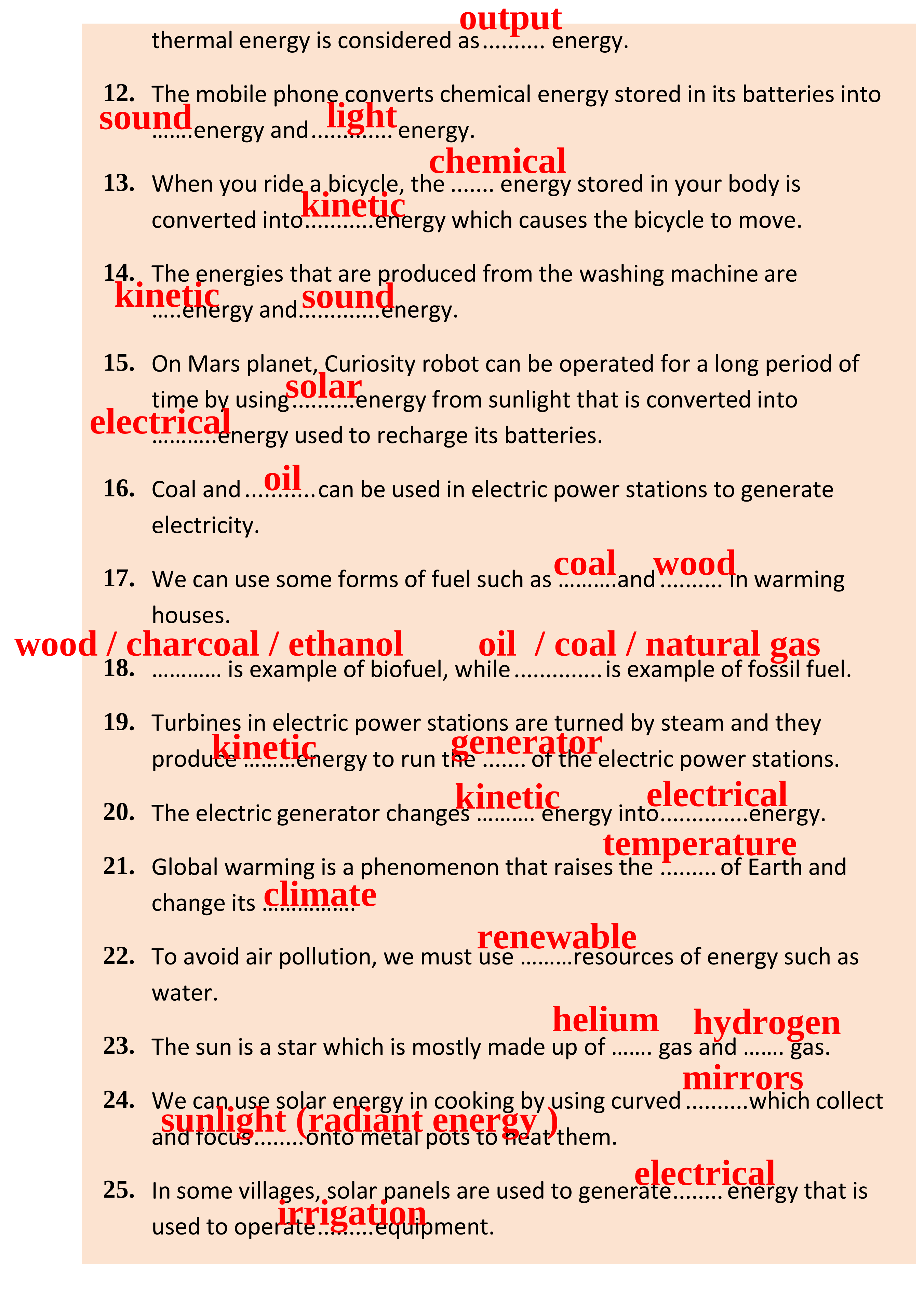
13-

A	B
1- Energy	a- solar energy
2- Solar heaters	b- Energy does not destroy, but transforms from one form to another
3- Solar panel input	c- It is used to heat water using the energy of the sun
	d- It is used to convert thermal energy into electrical energy

1-b **2- c** **3- a**

Q4 Complete the following:

1. As a result of hitting the ball with the bat, the direction of the ball will change in the opposite direction ……………
2. During a car crash, the air bag ……… is inflated with a gas to provide a soft cushion.
3. Engineers go to reduce the weight of the solar vehicles to increase its speed …….
4. The speed of solar ……….vehicles is slower than that of normal vehicles and electrical …….vehicles.
5. When the mass of a moving object decreases its kinetic energy decreases ……….. at the same speed.
6. To operate an electric mixer, we use electrical ………….energy.
7. The energy can be change /transform ……….from one form to another.
8. In any energy chain, some of the energy is lost in the form of thermal ……….
9. The energy that is produced from the battery and used to operate a toy car is electrical ……….. energy.
10. The electric lamp converts electrical ………energy into light and heat energy.
11. In electric heater, electrical ………. energy is considered as an input energy , while



thermal energy is considered as **output** .... energy.

12. The mobile phone converts chemical energy stored in its batteries into **sound** ....energy and **light** .... energy.

13. When you ride a bicycle, the **chemical** .... energy stored in your body is converted into **kinetic** ....energy which causes the bicycle to move.

14. The energies that are produced from the washing machine are **kinetic** .....energy and **sound** ....energy.

15. On Mars planet, Curiosity robot can be operated for a long period of time by using **solar** ....energy from sunlight that is converted into **electrical** ....energy used to recharge its batteries.

16. Coal and **oil** ....can be used in electric power stations to generate electricity.

17. We can use some forms of fuel such as **coal** ....and **wood** .... in warming houses.

18. **wood / charcoal / ethanol** .... is example of biofuel, while **oil / coal / natural gas** ....is example of fossil fuel.

19. Turbines in electric power stations are turned by steam and they produce **kinetic** ....energy to run the **generator** .... of the electric power stations.

20. The electric generator changes **kinetic** .... energy into **electrical** ....energy.

21. Global warming is a phenomenon that raises the **temperature** .... of Earth and change its **climate** ....

22. To avoid air pollution, we must use **renewable** ....resources of energy such as water.

23. The sun is a star which is mostly made up of **helium** .... gas and **hydrogen** .... gas.

24. We can use solar energy in cooking by using curved **mirrors** ....which collect and focus **sunlight (radiant energy)** ....onto metal pots to heat them.

25. In some villages, solar panels are used to generate **electrical** .... energy that is used to operate **irrigation** ....equipment.

26. When the wind turbines rotate, **kinetic** .... energy is converted into **electrical** ....energy.

27. Renewable energy resources include **sun** .... and **water / wind** ....

28. Both wind and water movement produce **kinetic** .... energy that is used to rotate turbines to generate .... **electrical** energy

Q5 Complete the write answer between brackets:

1.	When the car stops suddenly, the passengers move	(Forward - backward)
2.	When objects crash with each other, then ....transfers between them.	(Distance - energy)
3.	The big truck needs .... Engine.	(Big - small)
4.	When the car fuel completely runs out, then the car's ...... becomes zero.	(Mass - speed)
5.	Kinetic energy doesn't affect by the	(Mass - color)
6.	In a battery of a toy car ....energy changes into electrical energy.	(chemical – sound)
7.	Curiosity rover is designed to explore	(Mars planet – The Moon)
8.	Electric wires are made of	(wood - copper)
9.	When you use the hand ball, the ....energy changed into sound energy.	(electrical – kinetic)
10.	When you turn on a light bulb, the electrical energy travels through.............. until reaching the bulb.	(plastic - wires)
11.	Both hair dryer and electric water kettle produce ....energy.	(thermal - light)
12.	The produced ...... energy doesn't help the blender do its job.	(sound - kinetic)
13.	When a piece of coal is burnt,.............. Energy is produced.	(Potential - thermal)
14.	The car needs................to move.	(fuel - water)
15.	To keep playing with the toy car, we have to .... the batteries.	(replace- heat)

16.	All the following are found deeply under earth's surface <u>except</u> ……	(coal - green plant)
17.	Coal is a type of fuel, which is used in all the following purposes except ………..	(warming houses - operating TV)
18.	Ancient people use ……… as a form of fuel before discovering gasoline.	(wind - wood)
19.	………. is considered as the main resource of energy on Earth's surface.	(The sun - Natural gas)
20.	Hydroelectric energy is generated from ………	(biofuel and fossil fuel - waterfalls and dams)
21.	Acid rain is formed when............ combines with rain water.	(oxygen - carbon dioxide)
22.	Cars smog causes irritation of …… of human.	(the small intestine - the eye)
23.	Both modern wind turbines and old windmills are similar in their…..	(blades number – function)
24.	An example of the renewable energy is ………..	(oil - wind)
25.	Using curved ……… in cooking food is one of the benefits of using the solar energy.	(mirrors - wood)
26.	When wind ……… energy increases, the windmill blades spin faster.	(chemical - kinetic)
27.	In water turbines, the.......... energy of water is changed into electrical energy.	(kinetic - light)
28.	The form of energy resulted from waterfalls is called …… energy.	(solar - hydroelectric)
29.	Modern wind turbines are. .... the old vacuum mills	(longer than - shorter than)
30.	The power source for the electric fan is ……………	(wind- electricity)
31.	Solar energy is used in ………………………	(food preservation - cooking food)
32.	The output of solar panels is......................	(photo – electricity)
33.	Hydroelectric power is produced using ………………	(wind - water)
34.	The source of all energies on earth is ………………	(The sun - planets)
35.	Examples of renewable energy sources.	(coal - wind)
36.	The sun's energy is produced from a gaseous reaction.	(Hydrogen and Helium- Nitrogen

		and Helium)
37.	The electric heater transforms energy……… into heat energy	(Radio – electricity)
38.	One of the disadvantages of wind energy is that it is …………………………….	(High cost - does not blow sometimes)

Q6:

A. Answer the following questions

1 - Mention some of the safety equipment in the car?
air bag and seatbelt .... ………………

2works on starting the air bag inflating process in case of accidents. sensor

B-

1- Which one of them generates the electric energy is higher?



Figure 1



Figure 2.

2- What is the name of input energy to this type of turbines?

figure 2 because it has fewer number of blades that increase the rotation and the efficiency ……………………………………

C. What happens if ......?

1- The mass of a moving object increases when it moves downward along a ramp. (according to its kinetic energy).
2- Two bicycles move in an opposite direction, collide with each other.
3- Your hand is approached to lighting electric lamp.
3- The remains of marine were buried under the Erath´s surface over millions of years.

1-the kinetic energy will increase .

2- the two bicycles will make a strong Collison and will cause more damage to each other .
or it will collide in a forceful way causing more damage and the kinetic energy transfer between the two bicycles

3- I will feel warm.

4- it will turn into oil or natural gas in the extreme heat and

D. From the opposite figure:



a- What is the name of this device?

b- The change of energy from……solar……energy to......electrical...... energy .

Q7: Choose the correct answ

1. A plugged-in lamp can turn______energy to ______ energy.
   a. electrical; light   b- electrical; light
   d. chemical; light   d. chemical; heat

2. As energy transforms from one form to another, some of it is often lost as:
   a. light   b. heat
   c. sound   d. movement

3- The airbag helps to ....-
   a-Reduce the speed of a person’s movement forward.   b-Increase the speed of a person’s movement forward.
   c-Reduce the speed of a person's movement backwards.   d-Increase the speed of the person's movement backwards.

4. The airbag is made of ....
   a-Carton   b- Nylon
   c-Rubber   d-cloth

5. All the following are found deeply under the Erath´s surface, <u>except</u>……
   a-natural gas   b- coal
   c- green plants   d- oil

6. …………..is considered as the main resource of energy on the Erath´s surface.
   a-Gasoline   b- the sun
   c-Natural gas   d- the moon.